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# The Development of Diminutions in American Jazz

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## INTRODUCTION

I have selected jazz as the topic of this brief talk not from any misguided feelings of national pride or because I believe that jazz offers any real solutions to the problems of either traditional or contemporary music, but for a much simpler and purely "musical" reason which I will now explain.

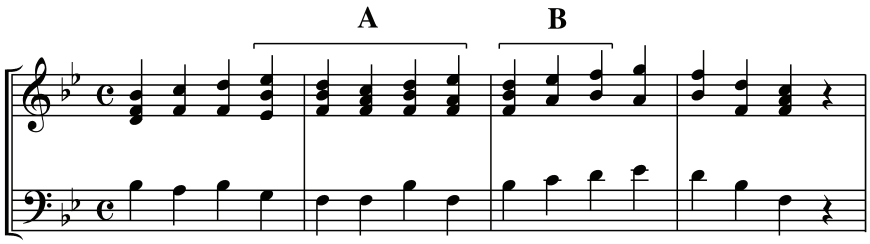
Jazz within its brief life span presents an interesting case of structural development that proceeds from a relatively simple to a relatively more complex stage. And since the essential process of jazz, improvisation, has also been very important to the development of European tonal music it seems worthy of consideration. That is to say, some additional light may be thrown upon improvisational and compositional practices in the tonal music of Western Europe by examining the development of jazz, which constitutes a relatively self-contained, though limited instance. A somewhat analogous situation exists in linguistics, where new insights regarding the structure of, say, the Romance languages are obtained through a study of other language groups. In this connection, it seems to me regrettable that music theorists have not yet interested themselves in the history of jazz improvisation.

I would therefore like to survey briefly the development of jazz improvisation. Before I begin, however, it will be necessary to explain certain basic concepts and terms. All of these will be perfectly familiar to you, and I apologize in advance for stating the obvious. I do so only in order to achieve a firm basis from which to proceed.

## PART ONE

Jazz improvisation is essentially melodic in nature. Therefore, it can be studied best in terms of diminution technique. By diminution technique is meant the melodic means (as distinct from, say, the rhythmic or chordal means) by which a given basic tonal structure is varied so as to expand or prolong its content.

Example 1 shows an example of such a basic structure, drawn not from jazz but from composed European music.

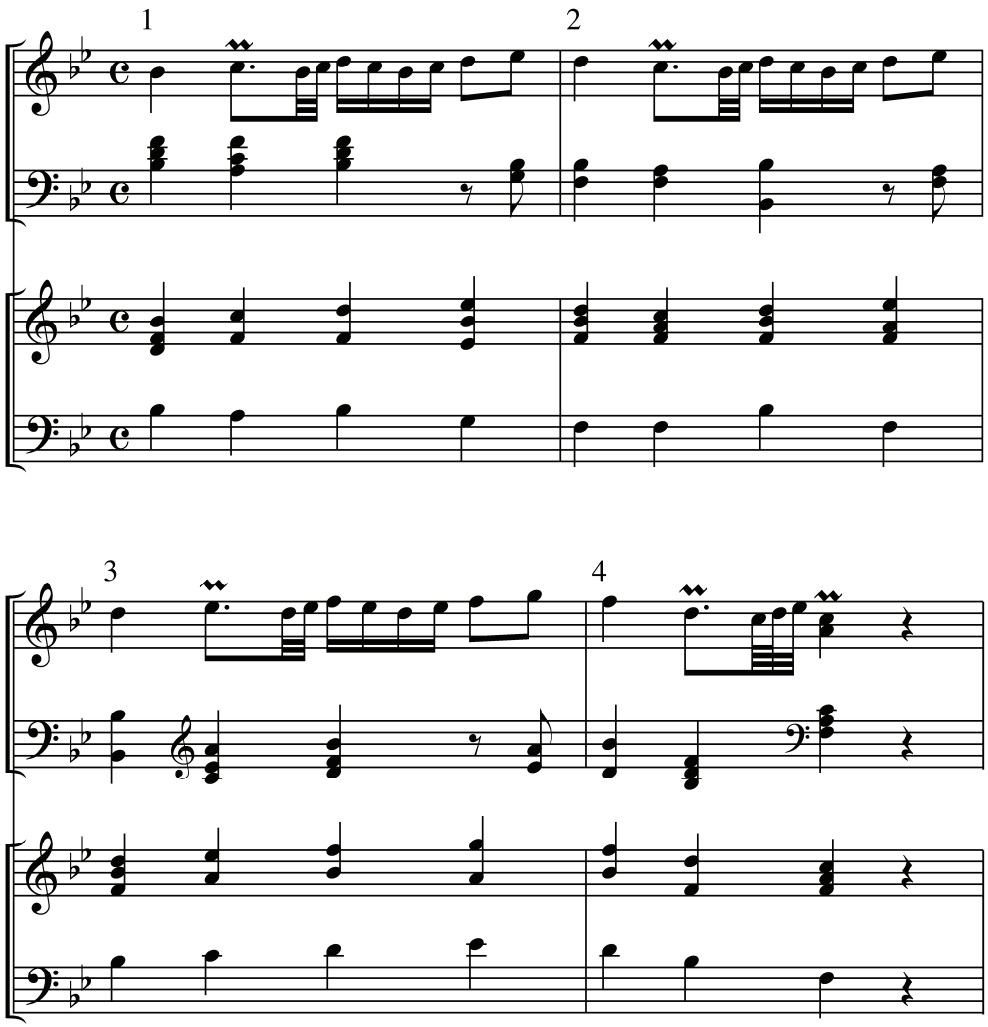



Example 1. Reduction of Handel, Air from *Prelude, Sonata, and Air with Variations in B♭ major* (HWV 434 1-3).

Let us examine the melody of this structure. In measure 1 it rises from $\hat{1}$ to $\hat{3}$. The $\hat{3}$ is then embellished by lower and upper adjacent tones. These tones *prolong* the main melodic tone $\hat{3}$. Thus, the embellishment is more than purely ornamental in purpose. In order to indicate its structural significance I shall use the traditional term *diminution* rather than embellishment. The term diminution therefore includes the notion of embellishment, but goes beyond to stress its structural purpose: *prolongation*. As you probably know, the concept of prolongation at specific structural levels is part of Heinrich Schenker's theoretical work. This concept underlies the present lecture.

In measure 3 there is another type of diminution. This consists of a motion within the chord which extends a third above the main melodic tone $\hat{3}$. This short example thus illustrates two fundamental diminution techniques, the first involving the adjacent tone, the second involving the passing tone.

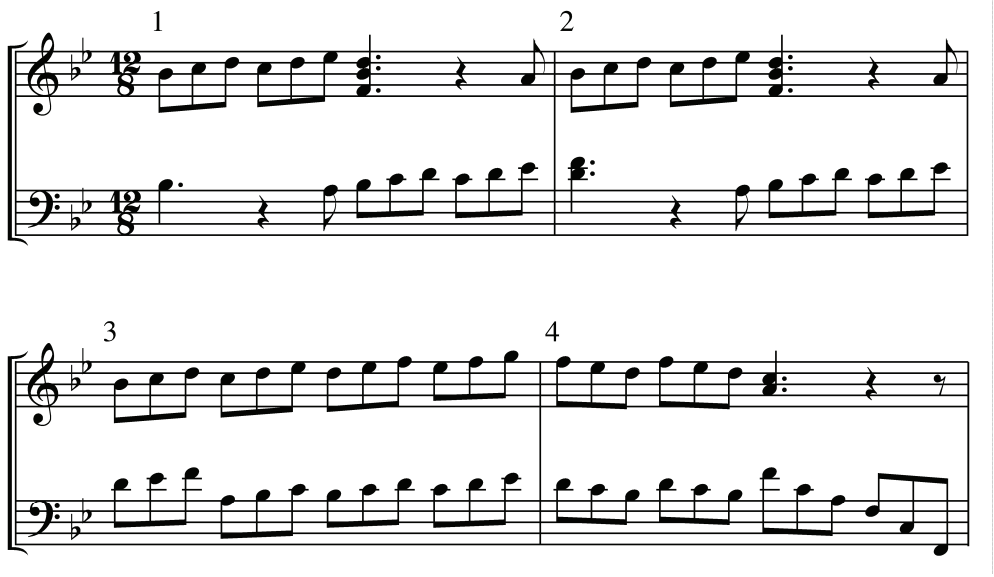
Example 2 shows how the melodic content of this structure is further expanded by diminution techniques. You recognize, of course, the familiar Handel Air in B♭, a rudimentary reduction of which I have just presented to you in order to show the underlying structure. Observe how the rising line in measure 1 is now expanded. The passing tone, C, is expanded by its upper and lower adjacent tones which occur in the form of a trill with an afterbeat. The D on the third beat receives a diminution consisting of a descending and an ascending motion that spans the interval of a third within the chord. And rhythmically we now have a more elaborate structure.



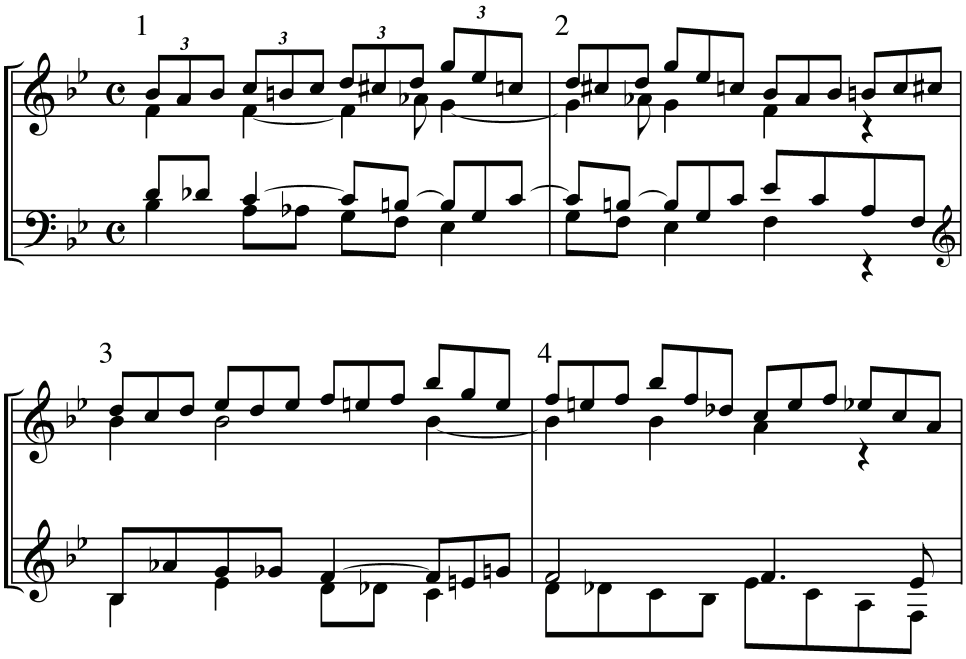

Example 2. Handel, Air from *Prelude, Sonata and Air with Variations in B♭ major* (HWV 434 1-3), with reduction.

Example 3 shows a further melodic expansion. The most striking transformation here is rhythmic: the subdivision of the original quarter notes into eighth-note triplets. But this rhythmic subdivision, in turn, is the result of the diminutional technique by which each tone in the rising line is supplied with its own three-note group which reflects the overall ascent of a third.

Now let us examine one of Brahms' variations on the same basic structure (see Example 4). Here as in the Handel variation, we have a rhythmic subdivision into triplets. However, the melodic diminutions are more elaborate, consisting of chromatic lower adjacent tones in the upper voice combined with chromatic passing tones in both the inner voices and bass line.




Example 3. Handel, Variation 3 from *Prelude, Sonata, and Air with Variations in B♭ major* (HWV 434 1-3).




Example 4. Brahms, Variation 2 from *Variation and Fugue on a Theme of Handel*, Op. 24.

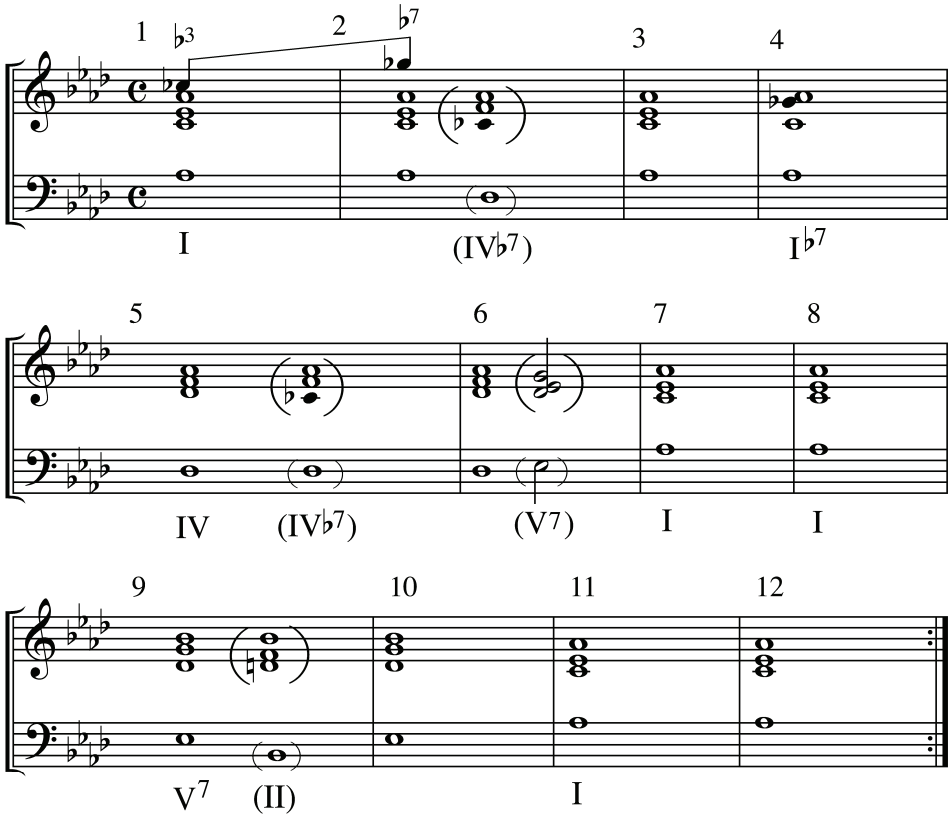
In comparing the Handel to the Brahms variation it is evident that the latter exhibits a greater degree of complexity in terms of the number of different diminutional events which occur in all of the component voices. Brahms' variation also departs further from the basic structure. We can therefore assert that the Brahms variation represents a later stage in the development of diminution technique.

## PART TWO

In jazz, a development of diminution technique comparable to that in the composed music of Europe does not occur. This is partly because jazz diminution technique has existed only in improvisation; unlike its European counterpart it has not undergone an extensive development in the works of many gifted composers over a period of hundreds of years. Thus, in jazz we find neither the complexity nor the finesse of diminution technique of composed music. And yet, considering its humble beginnings, and its almost complete separation from the main stream of composed music, some of the achievements of jazz improvisation are quite remarkable.

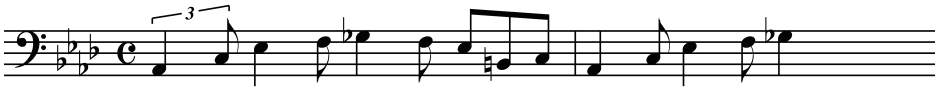
The beginnings of jazz are to be found in the American Negro's blues, which of course has its roots in Africa. Here is an example of this form: [Recording of "Dark Was the Night," performed by Blind Willie Johnson]. This primitive but expressive music was slowly shaped by the forces of Western European music until it took on the specific form shown in Example 5.

Let us examine this structure more closely. It comprises twelve measures and accordingly is known as the twelve-bar blues. The chord succession is rudimentary. The melody, however, is unique. I should say melodic elements instead of melody, since there is no fixed melody in the blues. These unique melodic elements are the flatted third and flatted seventh of the diatonic scale, known as "blue notes." You will hear them frequently in the recording which I will play for you in a moment. They occurred in the recording which I just played, but in the form of quarter-tone inflections. And of course in that recording the underlying diatonic structure was not clear. As we proceed to trace the development of jazz, it will become evident that these blue notes are central to jazz diminution technique. They also affect the chord succession, enabling it to incorporate naturally the complex chords which are also characteristic of French Impressionism. The essential rhythmic characteristic of the blues and of jazz is the subdivision of the beat into triplets. In the recording which I am about to play for you this will be heard in the guitar accompaniment, shown in Example 6. Notice that this figuration also emphasizes the flatted seventh.




Example 5. Twelve-bar blues in A♭.

Now I should like to play a recording of a twelve-bar vocal blues, a forerunner of the more complex instrumental blues. [Recording of "Mean Old Bedbug Blues," performed by Bessie Smith.]

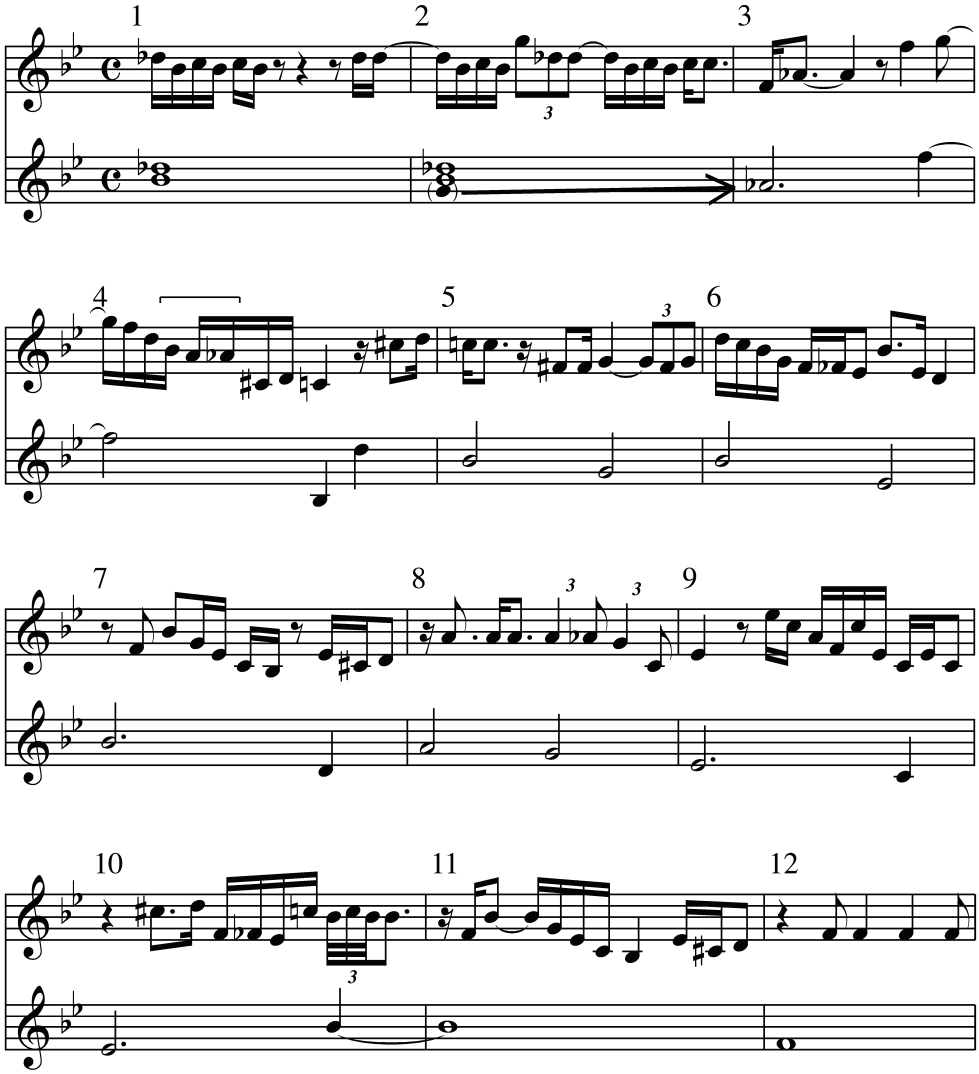


Example 6. Guitar figuration from Bessie Smith, "Mean Old Bedbug Blues."

PART THREE

The twelve-bar blues is the most important basic structure for jazz improvisation. It persists up to the present day. Therefore, by following its development we can achieve a clear picture of the development of diminution in jazz, for the basic blues structure remains the same, but undergoes considerable melodic, rhythmic, and chordal transformation.

There are roughly three main stages in the later development of jazz—and I speak now only of instrumental jazz. The first stage covers the 1920s, the "post-ragtime" period. I will now play a representative recorded blues from that period. [Recording of "The Bridwell Blues," performed by Louis Armstrong.] This improvisation is particularly interesting because it illustrates how the melodic diminutions, with their emphasis upon the blue notes, will eventually affect the basic chord succession. Example 7 shows, in notation, the improvisation we have just heard.




Example 7. Louis Armstrong, "The Bridwell Blues."

Directly below the improvised melody I have notated the main tones upon which the diminutions center. Observe the flatted third in measures 1 and 2 which serves as a diminution of $\hat{1}$. Then in measure 3 observe how the flatted seventh implies a change of chord. This change does not occur in the accompaniment until the following measure. Similarly, in measure 8 the chromatic passing tone, A♭, is not supported by the chord in the accompaniment. These events forecast later diminution practices as well as the elaboration of the chord succession.

Other diminutional characteristics to be observed are the abundance of upper adjacent tones and the use of chromatic adjacent and passing tones to prolong dissonances. Notice, for example, the bracketed figure in measure 4. This chromatic and diatonic adjacent tone diminution of the flatted seventh becomes common in later jazz improvisations. On the downbeat of measure 5 we find an unresolved upper adjacent tone that stands a sixth above the bass. In later blues improvisations this dissonance is absorbed into the chord, the familiar chord of the added sixth.

In measure 6 the diminution of B♭ is an arpeggiation combined with passing tones. The chord is the basic E♭ (IV) chord. The melodic diminution takes the form of a prefix that begins a third above the chord fifth (B♭). This creates the effect of a seventh chord. But here again the accompaniment does not incorporate this dissonance.

In measure 9 the diminution of E♭ takes the form of an arpeggiation of the V7 chord.

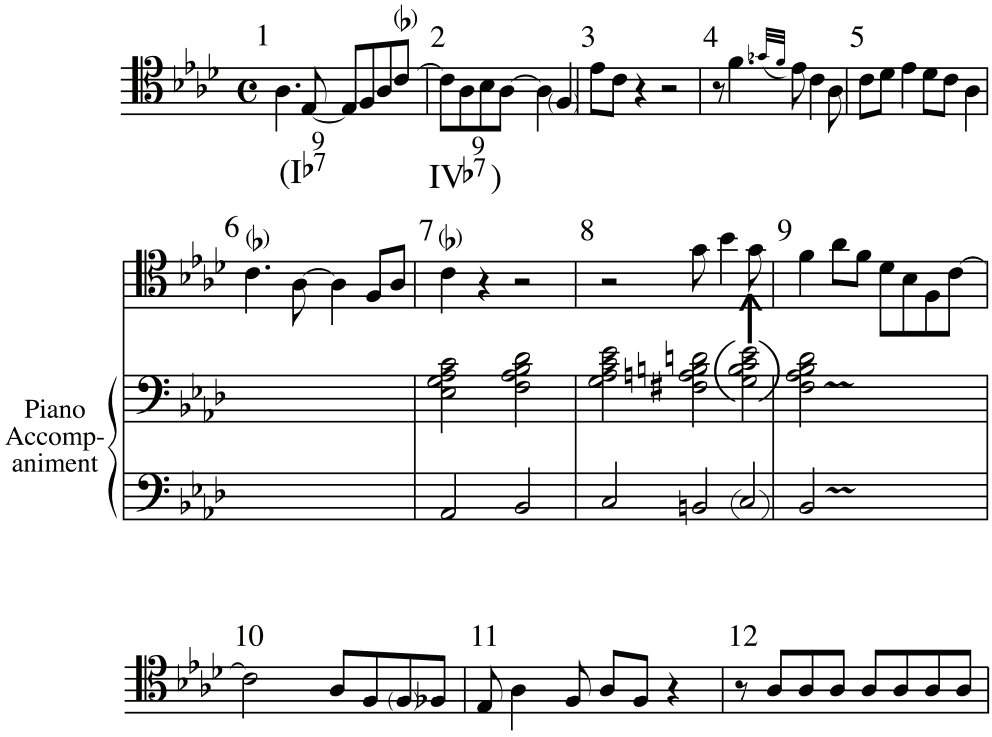
Notice that at several points, for example in measure 10, the melody anticipates the chord change. This is an early example of what later becomes almost a mannerism in jazz improvisations.

Finally, observe the elaborate rhythmic patterns. The four sixteenth-note groups are actually incomplete sextuplets, but I have simplified the notation here in accord with the usual practice. The rhythmic accent shifts constantly and moves freely above the strict metric pattern carried by the accompaniment. And frequently, expected accents are negated, which contributes further to the freedom of the melodic line.

## PART FOUR

I will now play two recorded examples from the second stage in the development of jazz diminution technique. Then, with the aid of the notation, we will determine which elements from the first stage are retained and which undergo transformation. [Recording of "Salute to Fats," performed by Lester Young.] Although this solo is similar in many respects to the Louis Armstrong solo, development is apparent in the chromaticism of the diminutions and in the more elaborate chord succession.

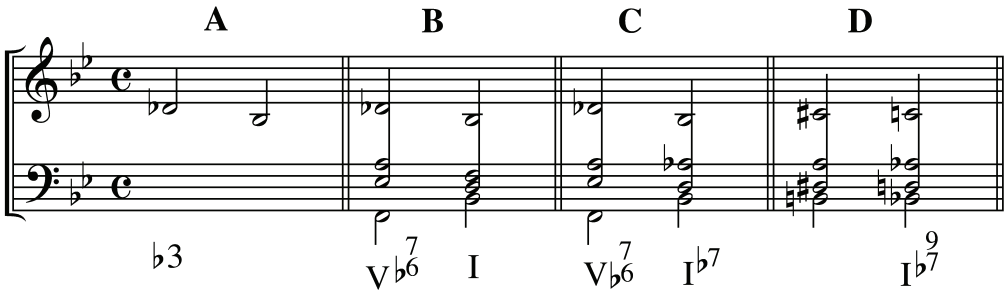
The second example in this stage, shown in Example 8, is by the same player. [Recording of "Blues 'n' Bells," performed by Lester Young.] I direct your attention to measure 8 where the accompaniment plays a chromatic passing chord, a chord of the seventh. Above this chord the soloist plays a diminution centering upon G. This tone is dissonant in relation to the chord in the accompaniment, purely by accident. The soloist bases his diminution upon a C-minor-seventh diatonic passing chord while the accompanist plays, instead, a B-minor-seventh *chromatic* passing chord. Accidental conflicts of this type characterize jazz at this intermediate stage when the basic chord succession is undergoing further elaboration. At the next stage of development diminutional events of some complexity can be traced back to these earlier accidents.




Example 8. Lester Young, "Blues 'n' Bells."

Here I should like to take a moment to explain how the blues chord succession was probably elaborated (see Example 9). The inclusion of chromatic chords in the blues begins with the cadence. The genesis of this chordal elaboration is in the blue notes. At A we see the purely melodic blue third. At B we see how this occurs over a V–I cadence, which thus gives rise to a more complex chord. At C

we see how the other blue note, the flatted seventh, is included in the I. At D we see a logical extension of these dissonant relationships in the form of chromatic adjacent tones in all voices.




Example 9. Chord "evolution."

Subsequently, chromatic successions of this type occur in other parts of the blues succession, and of course in non-blues jazz improvisations.

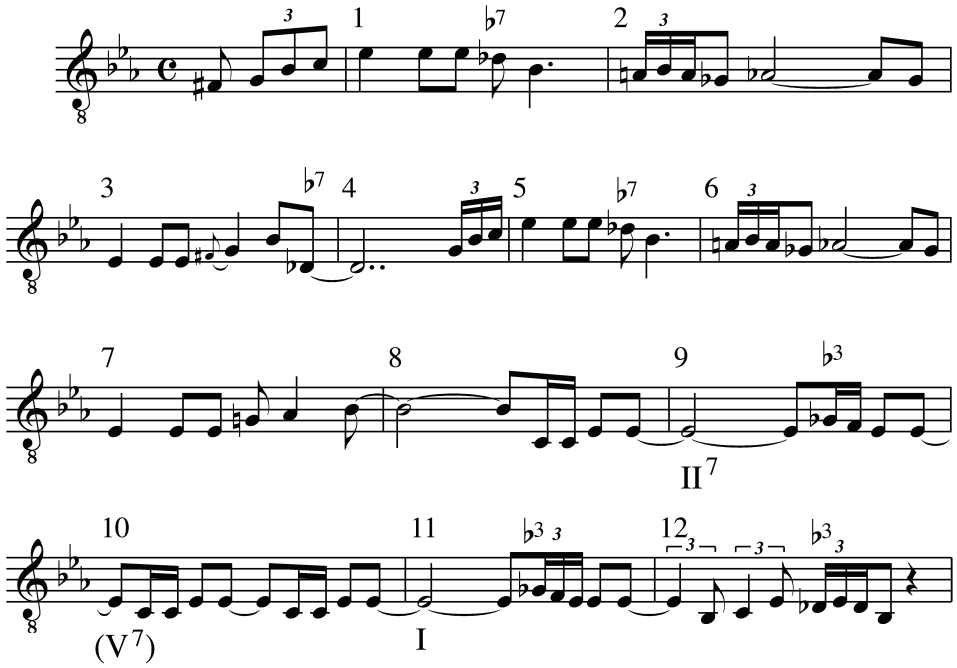
## PART FIVE

Let us now turn to the third stage in the development of jazz diminution technique (see Example 10). Here is a recent blues recording: [Recording of "Bluesology," performed by the Modern Jazz Quartet]. Observe how in measure 1 the characteristic flatted seventh persists in this highly stylized blues "theme." Notice also that it occurs both as a chord element (measure 4) and as a purely melodic dissonance (measure 1 and measure 5).

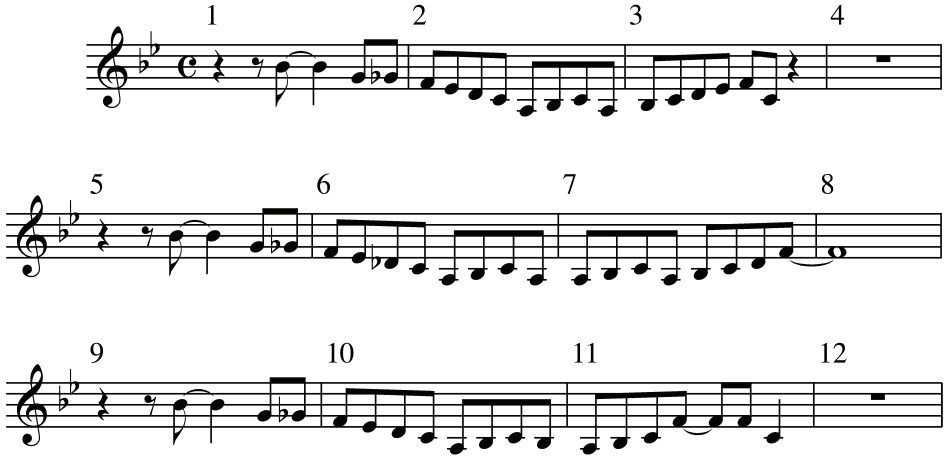
I direct your attention to the further elaboration of the blues chord succession in the form of a modified fifths progression in the bass; the original V7 is now preceded by II7: II7–V7–I. Here and in the more recent blues the V7 is elided. This progression was probably introduced from non-blues improvisations, but it was easily absorbed and retained in the blues because it provides better support than the V7 for the flatted third that frequently occurs during those measures. That is, if the flatted third occurs above the V7, a diminished fourth is formed with the leading tone. This tends to force the flatted third to resolve instead of retaining its idiomatic identity as a "fixed" dissonance, so to speak. Again, I stress that the original blue notes have at every stage conditioned the melodic as well as the chordal development of jazz, determining the acceptance or rejection of new elements as well as the transformation of old ones.

As a final example of blues diminutions I would like to play for you a recording of an improvisation by the alto saxophone player Charlie Parker which represents the complexity that diminution technique reached in the mid-1940s and early

1950s. [Recording of "Blues (fast)," performed by Charlie Parker.] I should like to draw your attention to certain general features in Example 11. First, notice how the melodic line is unified by repetitions, for example by the repeated upbeat at the beginning of each group and by the conclusion of each phrase on F.




Example 10. The Modern Jazz Quartet, "Bluesology."



Example 11. Charlie Parker, "Blues (fast)." First chorus.

Second, observe the long phrases employing notes of equal value, as compared to the many note values in the short phrases of Louis Armstrong heard earlier. These features probably represent the development and exploitation of instrumental technique, rather than purely structural development.

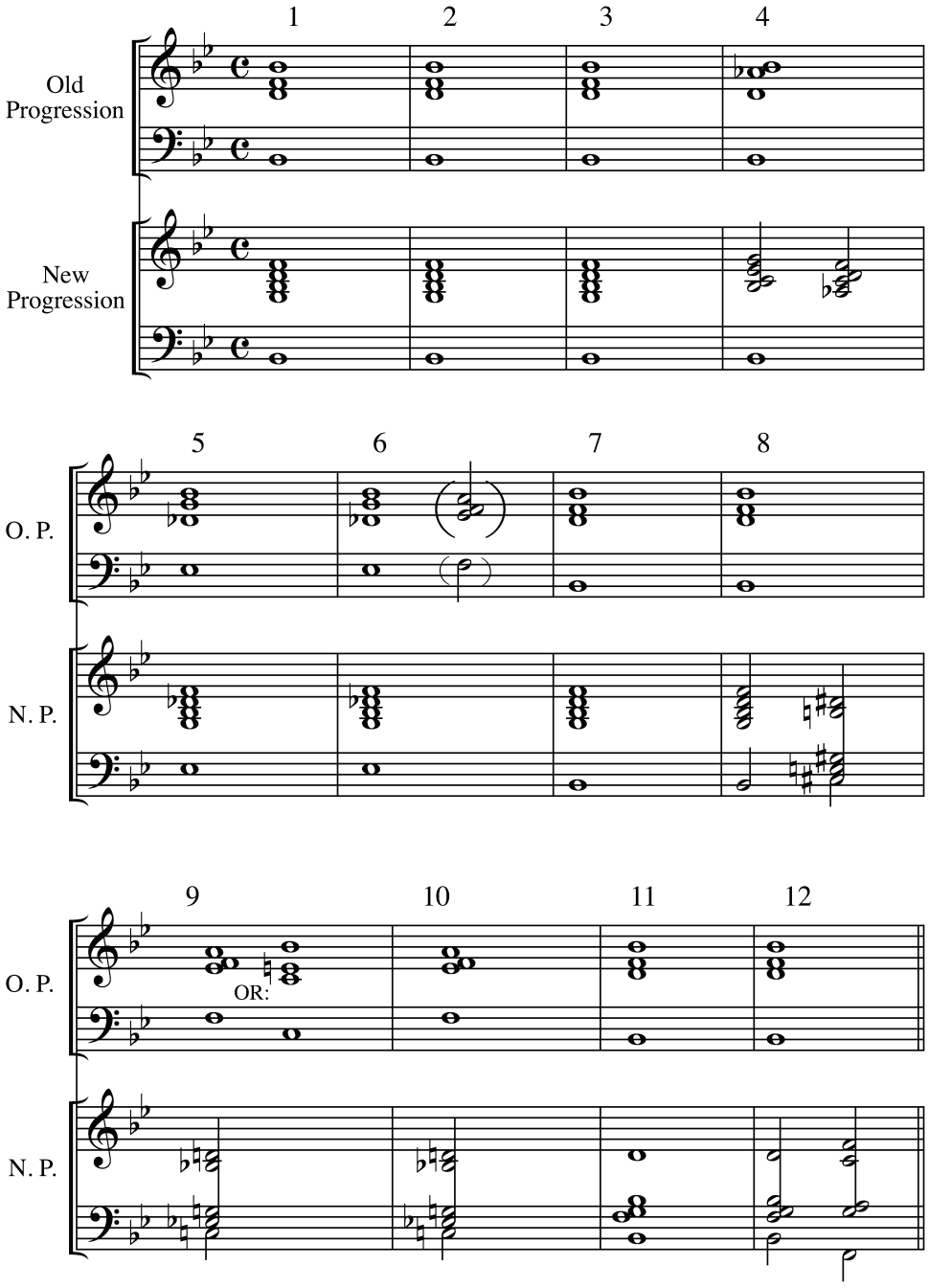
Third, observe the difference between the chord pattern used here and the pattern of the early blues (see Example 12). The bare triad does not occur in the new version. Here and in all recent jazz the triad includes the sixth above the root. In measure 4 of the new version we now have a chord of the ninth substituted for the original seventh chord. Again in measure 5 we see a similar substitution. In measure 9 we have a II9 introduced by parallel motion from the previous measure.

Here is the first variation on this blues "theme": [Recording of "Blues (fast)," performed by Charlie Parker]. In Example 13, immediately below the fully notated improvisation I have made a reduction which shows the tones that receive diminutions. Thus, for example, in the first four measures of this reduction we have a descending line that emphasizes the flatted seventh and third.

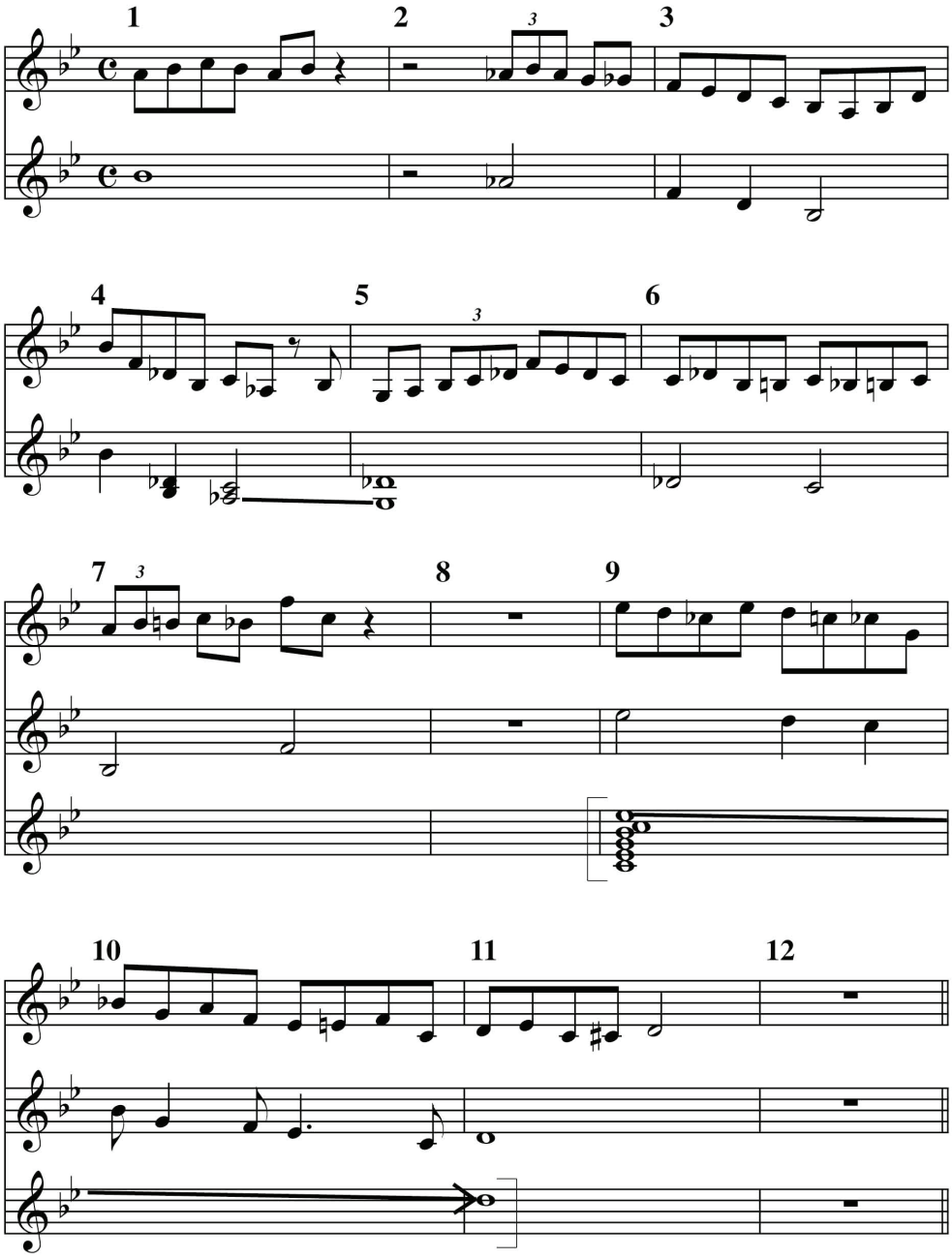
The specific diminutions are as follows: The diminution of B♭ in measure 1 consists of lower and upper adjacent tones. In measure 2 the diminution of A♭, the flatted seventh, consists of an upper adjacent tone followed by passing tones which connect to the next tone in the fundamental line, F. In measure 3 we find the tonic triad filled in with passing tones and embellished by an accented adjacent tone, A. In measure 4 the diminution centers upon D♭ (the flatted third) and consists of a chord arpeggiation. In measure 5 D♭ is still the main tone. Here it is preceded by an ascending motion from G which lies within the E♭ ninth chord. Observe the complex of diatonic and chromatic adjacent tones in measures 6 and 7. The reduction of measures 9 and 10 reveals a descending arpeggiation of the II7, with emphasis upon the chromatic passing tone, C♭. In these two measures the diminution technique combines the adjacent tone and the passing tone. And finally in measure 11 we have a complete adjacent tone figure centering upon the $\hat{3}$.

This elaborate improvisation utilizes familiar techniques of diminution, but in complex and unusual combinations. Its variety and fluency are quite remarkable.

Aspects of the rhythm to observe are: The grouping of the melody according to a two-beat measure. Only the bass and drums carry the full four beats in each measure. The frequent offbeat accents on the sixteenth notes, which thus form a rhythmic counterpoint to the metric accents.




Example 12. Comparison between old and new blues progressions.



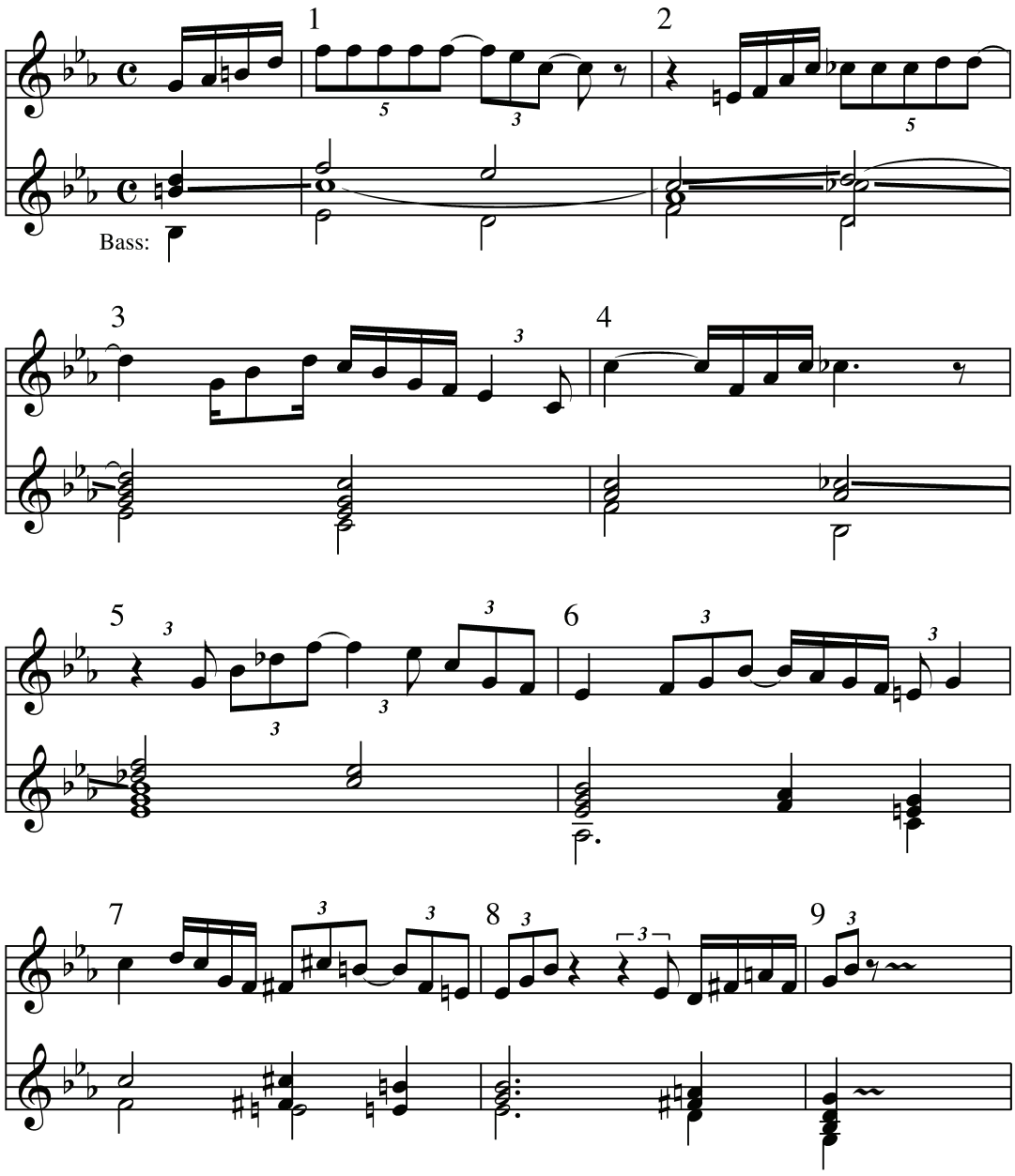

Example 13. Charlie Parker, "Blues (fast)." Second chorus.

PART SIX

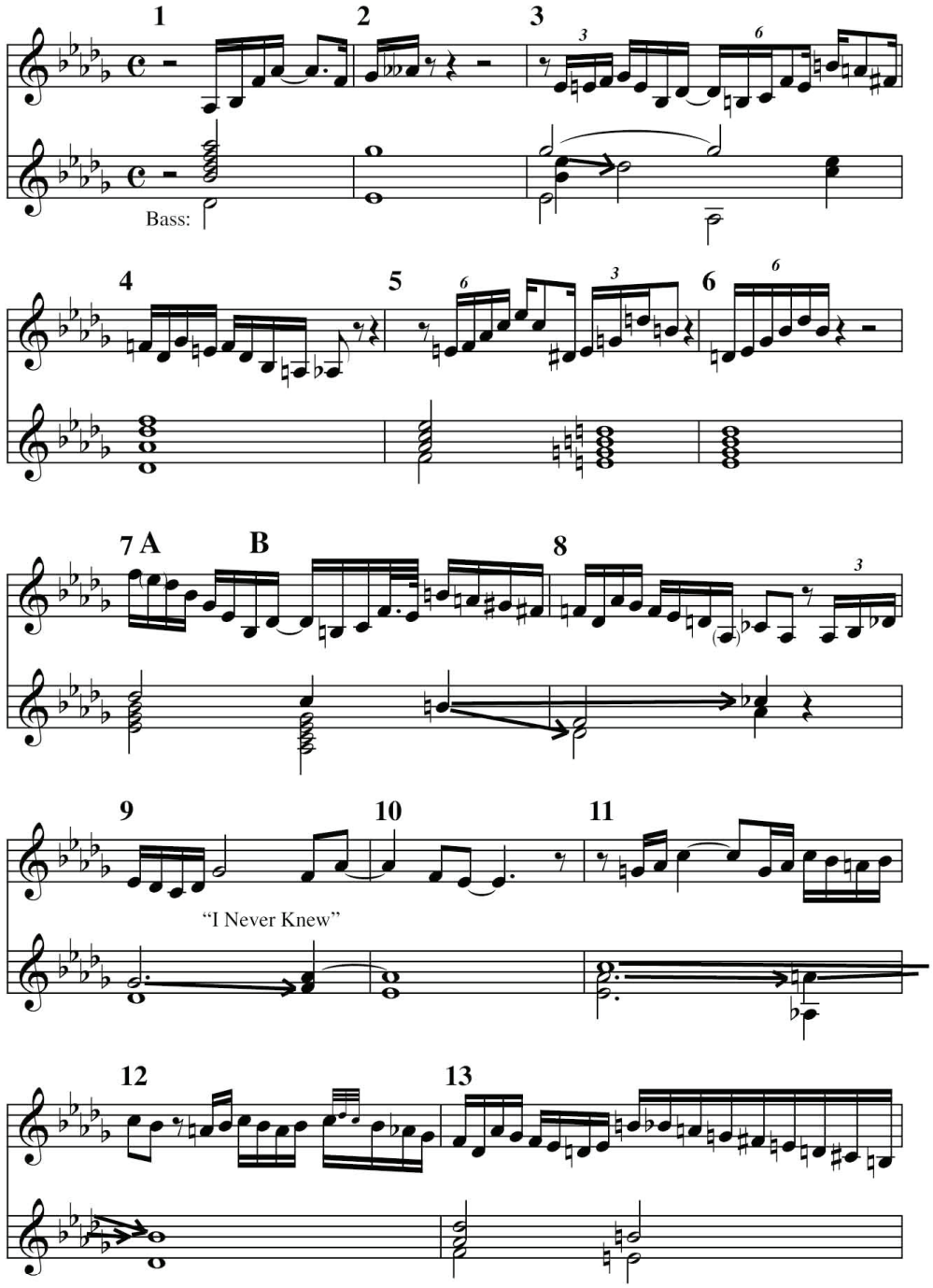
I have now briefly sketched the development of diminution technique in jazz from an early period up to the present time, using as examples only improvisations on the twelve-bar blues. The question naturally arises: How do blues diminutions relate to diminutions upon other structures? To answer this question, let us now listen to an excerpt from a non-blues improvisation based upon the second eight-measure period of a popular song. [Recording of "These Foolish Things," performed by Lester Young.] In Example 14 we see many similarities to diminution practice in blues improvisations. First, the given original melody is not the underlying melodic structure for the diminutions, but—as in the blues—the improvised melody is based solely upon the chord succession. In order to show clearly the nature of the diminutions in this excerpt, I have again constructed a rudimentary sketch of the fundamental line which underlies them. This sketch shows the polyphonic structure of the improvisation and its continuity. It also reveals clearly the origin and treatment of the dissonances. Within the long descending progression they occur as suspensions, accented chromatic passing tones and chromatic adjacent tones. Observe the delayed resolutions of these dissonances. The origin of this delay is, of course, the retention and repetition of the blue notes in the early blues succession.

Here is another example of a non-blues diminution, an improvisation by Charlie Parker on a standard popular song. [Recording of "I'm in the Mood for Love," performed by Charlie Parker.] This very elaborate improvisation has several features of interest. In Example 15, observe the elided tone in measure 1 which is implied by the rhythm. In measure 2 notice the incomplete upper adjacent tone. This occurs again in measure 11 where it serves as the upper adjacent tone to A♭. Melodic connections of this kind abound here and provide a unity not often achieved in an improvisation. The rhythm is complex. For example, notice that in measures 5–6 the arpeggiation is first stated, then contracted, and finally expanded again in the original form of a sextuplet, but now with a different metric placement. The accentual rhythm of the melody is often opposed to the metric accents. Further, in order to overcome any unwanted metric accents, the phrases are supplied with prefixes and suffixes.

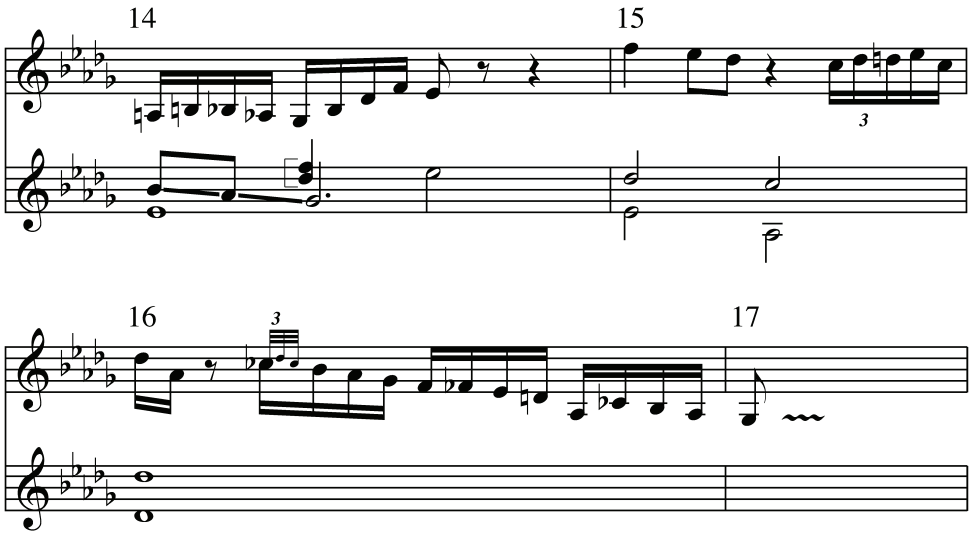
The individual diminution techniques themselves are familiar. They involve adjacent tones, both chromatic and diatonic (measure 14), arpeggiations (measure 7), and passing tones that span intervals of various sizes (note the octave in measure 13). The complexity of the improvisation resides in the combination of these techniques as well as in the rapidity and fluency with which they succeed one another.




Example 14. Lester Young, "These Foolish Things."




Example 15. Charlie Parker, "I'm in the Mood for Love" (continued on next page).




Example 15, *continued.*

The reduction indicates more specifically the nature of these diminutions and their continuity. I direct your attention particularly to the technique in measure 7. Here the main tone is the chord seventh, D♭. It is prolonged first by a descending prefix from F through an implied E♭ (shown at A), then by a chord arpeggiation below D♭ (shown at B). The resolution of D♭ then takes place through the chromatic lower adjacent tone, B. This tone of resolution, B, then functions in two ways: first as a passing tone which leads through the chromatic succession, B–A–G♯–F♯, to the chord third, F, on the downbeat of measure 8; second, as the enharmonic equivalent of the blue third, C♭, which recurs in measure 8.

There is also an interesting technique employed in measures 9–12. The G♭ which is introduced as an appoggiatura resolves downward as expected to F. Immediately following this resolution the A♭ is superimposed and retained to become a suspension in measure 10, where it forms a fourth with the bass. A♭ is then retained during the first part of measure 11 while C is superimposed. Finally, instead of resolving downward to G♭ as expected when the bass changes to A♭, the upper voice A♭ moves upward to B♭ over the bass D♭. This elaborate technique resembles those found in late-nineteenth-century chromatic music.

## CONCLUSION

Thus, in conclusion, we see that within its limited scope the development of diminution technique in jazz parallels that in certain periods of Western European music. For example, the early vocal and instrumental blues, illustrated by the

Bessie Smith and Louis Armstrong excerpts, employs relatively simple techniques, like those of early tonal music, whereas in the improvisations of Charlie Parker we find complex techniques similar to those in music of the later nineteenth century.

I emphasize again that the unique features of jazz diminutions, as distinct from those which it shares with composed European music, all stem from the original blue notes. These opened the way for the development of elaborate chromatic events in the melody as well as for an elaboration of the chord succession through the inclusion of dissonant melody elements.

Current diminution practices in jazz, curiously enough, tend toward conservatism. Chromaticism is much less prevalent now than ten years ago. This may reflect the consciously accepted influence of composed contemporary music of the so-called "neo-classic" school, since jazz players have made a determined effort to achieve respectability in recent years by attempting to associate themselves with the main stream of contemporary musical development. Their efforts in this direction are usually futile and often pathetic. What is considered "progressive" technique in modern jazz circles is invariably outdated in serious music circles.

It is my feeling that the main interest in jazz lies in the development of improvisation technique. And the apex of this development may well lie in the past rather than in the future.

## APPENDIX: RECORDINGS REFERENCED

Blind Willie Johnson, "Dark Was the Night" (Johnson)
*Performers:* Blind Willie Johnson (vocal and guitar)
*Recorded:* December 3, 1927
*Label number:* Columbia 14303-D; *matrix number:* W 145320-1
*CD reissue:* Blind Willie Johnson, *The Complete Blind Willie Johnson* (Columbia/Legacy C2K 52835)

Bessie Smith, "Mean Old Bedbug Blues" (Wood)
*Performers:* Bessie Smith (vocal); Porter Grainger (piano); Lincoln M. Conaway (guitar)
*Recorded:* September 27, 1927
*Label number:* CO 14250-D; *matrix number:* 144796-3
*CD reissue:* Bessie Smith, *The Complete Recordings Vol. 3* (Columbia/Legacy C2K 47474)

Louis Armstrong, "The Bridwell Blues" (Welsh–Jones)
*Performers:* Nolan Welsh (vocal); Louis Armstrong (cornet); Richard M. Jones (piano)
*Recorded:* June 16, 1926
*Label number:* Okeh 8372; *matrix number:* 9727-A
*CD reissue:* Louis Armstrong, *Portrait of the Artist as a Young Man* (Columbia/Legacy C4K 85670)

Lester Young, "Salute to Fats" (Guarnieri)
*Performers:* Lester Young (tenor saxophone); Billy Butterfield (trumpet); Hank D'Amico (clarinet); Johnny Guarnieri (piano); Dexter Hall (guitar); Billy Taylor (bass); Cozy Cole (drums)
*Recorded:* April 18, 1944
*Label number:* MG 12071; *matrix number:* 5448-1
*CD reissue:* Lester Young, *The Complete Savoy Recordings* (Savoy SVY17122)

Lester Young, "Blues 'n' Bells" (take 1) (Young)
*Performers:* Lester Young (tenor saxophone); Jesse Drakes (trumpet); Jerry Elliott (trombone); Junior Mance (piano); Leroy Jackson (bass); Roy Haynes (drums)
*Recorded:* June 28, 1949
*Label number:* MG 12071; *matrix number:* 5242-1
*CD reissue:* Lester Young, *The Complete Savoy Recordings* (Savoy SVY17122)

Modern Jazz Quartet, "Bluesology" (Jackson)
*Performers:* Milt Jackson (vibraharp); John Lewis (piano); Percy Heath (bass); Connie Kay (drums)
*Recorded:* February 14, 1956
*Label number:* Atlantic 1231
*CD reissue:* The Modern Jazz Quartet, *Fontessa* (Atlantic 1231-2)

Charlie Parker, "Blues (fast)" (Parker)
*Performers:* Charlie Parker (alto saxophone); Hank Jones (piano); Ray Brown (bass); Buddy Rich (drums)
*Recorded:* March or April, 1950
*Label number:* Verve MGV 8009; *matrix number:* 372-12
*CD reissue:* Charlie Parker, *Bird: The Complete Charlie Parker on Verve* (Verve 837 141-2)

Lester Young, "These Foolish Things" (Strachey–Marvell–Link)
*Performers:* Lester Young (tenor saxophone); Johnny Guarnieri (piano); Dexter Hall (guitar); Billy Taylor (bass); Cozy Cole (drums)
*Recorded:* April 18, 1944
*Label number:* 511; *matrix number:* 5446-1
*CD reissue:* Lester Young, *The Complete Savoy Recordings* (Savoy SVY17122)

Charlie Parker, "I'm in the Mood for Love" (McHugh–Fields)
*Performers:* Charlie Parker (alto saxophone); Hank Jones (piano); Ray Brown (bass); Buddy Rich (drums)
*Recorded:* March or April, 1950
*Label number:* Verve MGV 8009; *matrix number:* 373-2
*CD reissue:* Charlie Parker, *Bird: The Complete Charlie Parker on Verve* (Verve 837 141-2)

## ABOUT THE CONTRIBUTOR

ALLEN FORTE is Battell Professor of Music Theory Emeritus in the Department of Music at Yale University. His publications include some twelve books and eighty articles reflecting his interest in pitch-class set theory, the study of avant-garde music of the twentieth century, principally that of the Second Viennese School and Olivier Messiaen, Schenkerian analysis, and other aspects of music theory. In addition, he has written about and recorded music of the classic American popular song repertoire. Professor Forte was founding president of the Society for Music Theory and is a fellow of the American Academy of Arts and Sciences.

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